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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/800,634	03/16/2004	Takahiro Hagiwara	016907-1621	9690
22428 7590 01/02/2008 FOLEY AND LARDNER LLP SUITE 500 3000 K STREET NW WASHINGTON, DC 20007			EXAMINER DICKERSON, CHAD S	
			ART UNIT 2625	PAPER NUMBER
			MAIL DATE 01/02/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/800,634	Applicant(s) HAGIWARA, TAKAHIRO	
	Examiner Chad Dickerson	Art Unit 2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 3/16/2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 July 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>see attachment</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 11 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Re claim 11: the phrase "determining print data of a to-be-processed page from a current point that is a base point of the link information of the page-unit print data" renders the claim indefinite. Does this claim call for print data that has yet to be processed to be determined within a certain part of the print data to be displayed? The Examiner requests a clearer explanation of the claim.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claim 14 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Re claim 14: The claim is seeking patent protection on a seemingly patentable program, but a computer program is non-statutory subject matter. The Examiner suggests that the claim language reflects a computer readable medium that stores the program and is

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executed by some processor or CPU that can execute the instructions on the computer readable medium. Also, see MPEP 2106.01 for listing the claim as a computer program product.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-7 and 12-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Mori '453 (US Pub No 2002/0026453).

Re claim 1: Mori '453 discloses a printing system comprising:

input means for inputting print data (i.e. the host computer (3000) is considered to be the input means that inputs print data into the printer (1500); see figs. 1-3; paragraphs [0078]-[0088]);

division means for dividing the print data input by the input means into page units (i.e. in the system, the number of logical pages are specified in the system. The system of Mori '453 takes the input data in the host computer and divides the print data in terms of the physical page information and further describes this information in logical page

information shown in figures 12-14. The logical pages are considered to be page units; see figs. 12-14; paragraphs [0167]-[0184]);

first addition means for adding print setting state data to the print data of each of the page units divided by the division means (i.e. in performing the printing of print data, the physical page information contains page information for each individual page printed within the print job. The system includes, or adds, the format information, considered as the print setting state data, to the logical page information. The logical page information is apart of a larger print job to be printed. The system of the host computer automatically adds this information to the logical page data; see figs. 12-14; paragraphs [0167]-[0184]);

second addition means for adding page description data to the print data of each of the page units divided by the division means (i.e. the system also includes the physical page makeup of the logical page contained in the drawing file of the logical page, which corresponds to the logical page ID. This information is included, or added, to the physical page information shown in figure 12; see figs. 12-14; paragraphs [0167]-[0184]);

generation means for generating a print job control script file in association with the print data divided by the division means (i.e. the physical page information illustrated in field (1004) in figure 10 is made up of the previous logical page information. The physical page information is generated and it is associated with the print data that is separates like the logical pages. The physical page information is generated from a

spool file and the spool file is created by the spooler (302); see figs. 12-14; paragraphs [0139]-[0160] and [0167]-[0184]); and

print means for performing printing in accordance with the print job control script file generated by the generation means (i.e. the printer (1500) is used to print information from the host computer that is reflective of the page description information and the job setting information in the spooler file; see figs. 1-3; paragraphs [0078]-[0088]).

Re claim 2: The teachings of Mori '453 are disclosed above.

Mori '453 discloses the printing system according to claim 1, wherein the print data is a Page Description Language (i.e. in the system, the information to be printed is converted into a page description language; see figs. 1-3; paragraphs [0078]-[0088]).

Re claim 3: The teachings of Mori '453 are disclosed above.

Mori '453 discloses the printing system according to claim 1, wherein the print setting state data is a print setting/definition for return to a print start state of the associated page (i.e. in the system, the print data related to the job can be requested to be started in the system. When the system looks at the first page of the job data, the system sees the print format information, considered as the print setting/definition, for each page being considered to be printed. Therefore, when the system records a first page, the

system then goes to the page information of the second page to record the page in the manner related to the physical and formatting information;).

Re claim 4: The teachings of Mori '453 are disclosed above.

Mori '453 discloses the printing system according to claim 1, wherein the page description data is an editing command for enlargement, reduction, rotation and shift (i.e. in the logical page information, the pages can be edited by an expansion rate or contraction (reducing) rate, which is analogous to the enlargement and reduction of an image; see paragraphs [0182]-[0192]).

Re claim 5: The teachings of Mori '453 are disclosed above.

Mori '453 discloses the printing system according to claim 1, wherein the page-unit print data comprises a PDL description section for re-setting the associated page in a print start state (i.e. in figures 12-14, the logical page data for each page contains a PDL section that is able to place the logical page in a state that can start the printing process of that specific page. The intermediate codes representing these pages are in PDL form. The intermediate codes relating to the job output setting of the logical pages can be re-created. This information can be printed if a user desires to print this information; see paragraphs [0087], [0088] and [0161]-[0192]);

an editing PDL description section that defines variables necessary for performing enlargement, reduction, rotation and shift at a time of re-printing (i.e. the setting change editor is used to change the variables such as the expansion/contraction (reduction) rate or inversion of the image data. This editing can be performed to image data before a user desires to print the information. Therefore, the editing of the setting information can occur before printing; see fig. 18; see paragraphs [0087], [0088] and [0161]-[0192]) and enables acquisition of a desired editing result by setting of values at a time of print execution (i.e. the user can desire to print a certain job and the job requested to be printed will be displayed or printed with the most recent job output setting file. When this occurs to a single job, the old setting file is stored as a default while the new output setting file is used in the current job being displayed. With the user choosing this setting by pressing "OK" in figure 18, this setting file can be the setting file used if the user desires to print the print job; see paragraphs [0087], [0088] and [0161]-[0192]); and

a PDL description section for actual image rendering (i.e. in the logical page ID is a reference to the PDL or intermediate code of the page drawing file that corresponds to the logical page from the spool file (303). This is involved in the physical rendering of the image; see paragraphs [0087], [0088] and [0161]-[0192]), and the page-unit print data is stored in a folder for the print data, which is provided in storage means (i.e. in the system, the print data that is produced is stored in a spool file (303), which is analogous to a folder. The spool file (303) is stored in the external memory (11); see figs. 1-3; paragraphs [0079]-[0095]).

Re claim 6: The teachings of Mori '453 are disclosed above.

Mori '453 discloses the printing system according to claim 1, wherein the printing system is a multi-function peripheral (i.e. the printing system of the embodiment of this invention can be performed on one apparatus that can be considered as a MFP. The MFP can be a copier that performs the features of scanning and printing, or on a facsimile that performs the features of scanning, faxing and printing; see paragraph [0218]).

Re claim 7: The teachings of Mori '453 are disclosed above.

Mori '453 discloses the printing system according to claim 1, wherein the printing system is a printer driver (i.e. in the system of Mori '453 a printer driver is used in the printing system; see figs. 1-3; paragraphs [0079]-[0095]).

Re claim 12: Mori '453 discloses a method of controlling printing, comprising:

dividing input print data into page units (i.e. in the system, the number of logical pages are specified in the system. The system of Mori '453 takes the input data in the host computer and divides the print data in terms of the physical page information and further describes this information in logical page information shown in figures 12-14.

The logical pages are considered to be page units; see figs. 12-14; paragraphs [0167]-[0184]);

adding print setting state data to the print data of each of the divided page units (i.e. in performing the printing of print data, the physical page information contains page information for each individual page printed within the print job. The system includes, or adds, the format information, considered as the print setting state data, to the logical page information. The logical page information is apart of a larger print job to be printed. The system of the host computer automatically adds this information to the logical page data; see figs. 12-14; paragraphs [0167]-[0184]);

adding page description data to the print data of each of the divided page units (i.e. the system also includes the physical page makeup of the logical page contained in the drawing file of the logical page, which corresponds to the logical page ID. This information is included, or added, to the physical page information shown in figure 12; see figs. 12-14; paragraphs [0167]-[0184]);

generating a print job control script file in association with the divided print data (i.e. the physical page information illustrated in field (1004) in figure 10 is made up of the previous logical page information. The physical page information is generated and it is associated with the print data that is separates like the logical pages. The physical page information is generated from a spool file and the spool file is created by the spooler (302); see figs. 12-14; paragraphs [0139]-[0160] and [0167]-[0184]); and

controlling printing in accordance with the generated print job control script file (i.e. the printer (1500) is used to print information from the host computer that is reflective of the page description information and the job setting information in the spooler file; see figs. 1-3; paragraphs [0078]-[0088]).

Re claim 13: The teachings of Mori '453 are disclosed above.

Mori '453 discloses the method of controlling printing according to claim 12, wherein the print data is a Page Description Language (i.e. in the system, the information to be printed is converted into a page description language; see figs. 1-3; paragraphs [0078]-[0088]).

Re claim 14: Mori '453 discloses a program that causes a printing system, which effects printing using given print data such as a Page Description Language (i.e. the system has program codes used to execute the embodiment of the invention that can be stored on different storage mediums; see paragraphs [0219]-[0225]), comprising:

dividing the print data into page units (i.e. in the system, the number of logical pages are specified in the system. The system of Mori '453 takes the input data in the host computer and divides the print data in terms of the physical page information and further describes this information in logical page information shown in figures 12-14.

The logical pages are considered to be page units; see figs. 12-14; paragraphs [0167]-[0184]);

adding print setting state data to the print data of each of the divided page units (i.e. in performing the printing of print data, the physical page information contains page information for each individual page printed within the print job. The system includes, or adds, the format information, considered as the print setting state data, to the logical page information. The logical page information is apart of a larger print job to be printed. The system of the host computer automatically adds this information to the logical page data; see figs. 12-14; paragraphs [0167]-[0184]);

adding page description data to the print data of each of the divided page units (i.e. the system also includes the physical page makeup of the logical page contained in the drawing file of the logical page, which corresponds to the logical page ID. This information is included, or added, to the physical page information shown in figure 12; see figs. 12-14; paragraphs [0167]-[0184]);

generating a print job control script file in association with the divided print data (i.e. the physical page information illustrated in field (1004) in figure 10 is made up of the previous logical page information. The physical page information is generated and it is associated with the print data that is separates like the logical pages. The physical page information is generated from a spool file and the spool file is created by the spooler (302); see figs. 12-14; paragraphs [0139]-[0160] and [0167]-[0184]); and

controlling printing in accordance with the generated print job control script file (i.e. the printer (1500) is used to print information from the host computer that is reflective of the page description information and the job setting information in the spooler file; see figs. 1-3; paragraphs [0078]-[0088]).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mori '453 in view of Takahashi '221 (US Pat no 6832221).

Re claim 8: The teachings of Mori '453 are disclosed above.

Mori '453 discloses the printing system according to claim 1, wherein the printing system comprises a multi-function peripheral (i.e. the printing system of the embodiment of this invention can be performed on one apparatus that can be considered as a MFP. The MFP can be a copier that performs the features of scanning and printing, or on a facsimile that performs the features of scanning, faxing and printing; see paragraph

[0218]), and a personal computer having communication means for data communication with the peripheral (i.e. the system involves having data communication between the host computer and the printer, considered as the peripheral; see figs. 1-3; paragraphs [0079]-[0095]).

However, Mori '453 fails to teach a personal computer having communication means for data communication with the multi-function peripheral.

However, this is well known in the art as evidenced by Takahashi '221. Takahashi '221 discloses a personal computer having communication means for data communication with the multi-function peripheral (i.e. Takahashi '221 discloses a MFP being used to convert documents sent from a user (14) into image data; see figs. 1 and 2; col. 5, line 5 – col. 6, line 47).

Therefore, in view of Takahashi '221, it would have been obvious to one of ordinary skill at the time the invention was made to have the feature of a personal computer having communication means for data communication with the multi-function peripheral in order to process received information from a user computer (as stated in Takahashi '221 col. 6, lines 35-47).

Re claim 9: The teachings of Mori '453 are disclosed above.

However, Mori '453 fails to teach the printing system according to claim 1, wherein a multi-function peripheral, a personal computer and an appliance server are connected by communication means.

However, this is well known in the art as evidenced by Takahashi '221. Takahashi '221 discloses the printing system according to claim 1, wherein a multi-function peripheral, a personal computer and an appliance server are connected by communication means (i.e. the connecting device (15) is used as a network hub for a server (12), the MFP (11) and a user computer (14). It forms a LAN environment by relaying data communication between the devices; see col. 7, lines 26-36).

Therefore, in view of Takahashi '221, it would have been obvious to one of ordinary skill at the time the invention was made to have the feature of wherein a multi-function peripheral, a personal computer and an appliance server are connected by communication means in order to relay data communication between the terminal devices (as stated in Takahashi '221 col. 7, lines 26-36).

Re claim 10: The teachings of Mori '453 are disclosed above.

Mori '453 discloses the printing system according to claim 1, further comprising:

storage means for storing page-unit print data in order of storage (i.e. the spooler file is used to store the information regarding a print job. This is used to store the logical pages that are in a job. As shown in figure 12, the logical pages are stored in the order

in which the jobs are placed in the overall job; see paragraphs [0087], [0088] and [0161]-[0192]);

display means for displaying, when the page-unit print data stored in the storage means is selected, the selected page-unit print data as a thumbnail (i.e. in the system, the display on the monitor of the host computer is used to display or preview the logical pages in a print job that is stored in a spooler file, which is considered as a storage means. The spooler file is on the external memory (11). The logical page can be selected to be displayed as a thumbnail when the user is deciding to combine certain logical pages into one job. This can be seen in figures 17 and 18; see fig. 17 and 18; see paragraphs [0087], [0088] and [0161]-[0192]);

setting means for performing data setting by moving the thumbnail that is displayed on the display means (i.e. in the system, using the mouse cursor, the thumbnail information can be removed from the display by choosing the thumbnail and pressing the delete button, which will move the thumbnail from the screen out of view on the monitor. If there are more than two pages in the combined job and user decided to select other options besides the same side on the "print next document on:" option, then this would move the thumbnails to the other pages, thus moving the thumbnails; see fig. 17 and 18; see paragraphs [0087], [0088] and [0161]-[0192]); and

However, Mori '453 fails to teach storing page-unit print data in chronological order and second control means for executing a control to generate link information from the set thumbnail and to store the link information in the storage means.

However, this is well known in the art as evidenced by Takahashi '221.

Takahashi '221 discloses storing page-unit print data in chronological order (i.e. in the system of Takahashi '221, the thumbnail images are displayed in a calendar format in chronological order according to the date the image information was processed; see figs. 15 and 16; col. 12, lines 18-44) and second control means for executing a control to generate link information from the set thumbnail and to store the link information in the storage means (i.e. in the storage management device, link information is added for relating the processing data with the data stored in memory. The processing data is the data that is displayed as a thumbnail; col. 3, lines 51-62).

Therefore, in view of Takahashi '221, it would have been obvious to one of ordinary skill at the time the invention was made to have the features of storing page-unit print data in chronological order and second control means for executing a control to generate link information from the set thumbnail and to store the link information in the storage means in order to have link information related to processed data and have the processed data displayed according to the processing date (as stated in Takahashi '221 col. 3, lines 51-62 and col. 12, lines 18-44).

9. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mori '453, as modified by Takahashi '221, and further in view of Kizaki '981 (US Pat No 6883981).

Re claim 11: The teachings of Mori '453 in view of Takahashi '221 are disclosed above.

Mori '453 discloses the printing system according to claim 10, further comprising:

determining means for determining print data of a to-be-processed page from a current point of the page-unit print data stored in the storage means (i.e. in the system, when a user desires to print process a page, each page must be processed using the page information related to each logical page. The system determines if the page needs to be converted into intermediate codes and when to move on to the next page to be processed (this is explained in figure 5). The system determines the page to be processed and this information is stored in a spool file; see figs. 5, 6 and 10-14; paragraphs [0139]-[0183]); and

third control means for executing a control to extract print data of the page determined by the determining means and to preview-display the extracted print data (i.e. the system allows for the image data that has been converted into intermediate codes in the spool file and this information is displayed to the user in figures 16 and 17. The information is extracted from a spool file (303), which is stored on a external memory means, and the file is displayed to the user; see figs. 16 and 17; paragraphs [0103]-[0110]).

However, Mori '453 in view of Takahashi '221 fails to teach to a base point of the link information of the page-unit print data.

However, this is well known in the art as evidenced by Kizaki '981. Kizaki '981 discloses from a current point that is a base point of the link information of the page-unit print data (i.e. Kizaki '981 discloses having link data for each original data that the

system can refer to when processing each page in the print job; see figs. 3 and 12; col. 10, lines 49-59).

Therefore, in view of Kizaki '981, it would have been obvious to one of ordinary skill at the time the invention was made to have the feature of having a base point of the link information of the page-unit print data in order to have link information that corresponds to the original data of a page (as stated in Kizaki '981 col. 10, lines 49-59).

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

11. Nishikawa '897 (US Pub No 2002/0052897) discloses a system for dividing a print job into logical pages and describes the data using PDL.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chad Dickerson whose telephone number is (571)-270-1351. The examiner can normally be reached on Mon. thru Thur. 9:00-6:30 Fri. 9:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Aung Moe can be reached on (571)- 272-7314. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CD/ *CD*
Chad Dickerson
December 21, 2007

[Signature]
AUNG S. MOE
SUPERVISORY PATENT EXAMINER

12/21/07